

10/025,550
H07-138280M/STS

AMENDMENTS TO THE CLAIMS:

Please cancel claims 34-35 and 39 without prejudice or disclaimer.

1. (Currently amended) An image forming method comprising:

in a center feed developing system comprising first and second developing rollers and a developing agent distributing member formed between said first and second developing rollers, and using a two-component developing agent consisting mainly of ~~said~~ toners and magnetic carriers:

controlling a stress applied to said developing agent between said first and second developing rollers and ~~said~~ a developing agent distributing member, by selecting a shape coefficient SF2 of toner particles in said toners to be within a predetermined range to restrict an occurrence of photographic fog;

developing an electrostatic latent image formed on an image carrier into a toner image using said toners;

transferring said toner image onto a recording medium ~~which comprises a continuous sheet~~; and

fixing said toner image transferred onto said recording medium to thereby form a recorded image on a recording sheet;

wherein said latent image is developed by said first and second developing rollers disposed along the moving direction of said image carrier and rotatable in the mutually opposite directions using said two-component ~~magnetic~~ developing agent consisting mainly of toners and magnetic carriers, and said toners are supplied to said latent image on said image carrier by said first and second developing rollers,

wherein the moving direction of said first developing roller is opposite to the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S1 = Vm1 / Vp$) between the peripheral speed ($Vm1$) of said first developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 0.8 - 2.0,

wherein the moving direction of said second developing roller is the same as the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S2 = Vm2 / Vp$)

10/025,550
H07-138280M/STS

between the peripheral speed (V_{m2}) of said second developing roller and the peripheral speed (V_p) of said image carrier is set in the range of 1.05 - 2.0, and

wherein a plurality of shape coefficients SF1, SF2 of said toners of said two-component ~~magnetic~~ developing agent consisting mainly of toners and magnetic carriers are respectively defined according to the following expressions (1) and (2),

$$SF1 = (\text{maximum length of diameter})^2 / (\text{area of toner particle}) \times \pi / 4 \times 100 \quad \text{--- (1)}$$

$$SF2 = (\text{peripheral length of projected image})^2 / (\text{area of toner particle}) \times 100 / 4 \pi \quad \text{--- (2),}$$

said shape coefficients SF1, SF2 respectively satisfying the following conditions:

$$120 \leq SF1 \leq 170$$

$$110 \leq SF2 \leq 130.$$

2. (Currently amended) An image forming method comprising:

in a center feed developing system comprising one or more sets of first and second developing rollers and a developing agent distributing member formed between said first and second developing rollers, and using a two-component developing agent consisting mainly of ~~said~~ toners and magnetic carriers:

controlling a stress applied to said developing agent between said first and second developing rollers and said a developing agent distributing member, by selecting a shape coefficient SF2 of toner particles in said toners to be within a predetermined range to restrict an occurrence of photographic fog;

developing an electrostatic latent image formed on an image carrier into a toner image using said toners;

transferring said toner image onto a recording medium ~~which comprises a continuous sheet~~; and

fixing said toner image transferred onto said recording medium to thereby form a recorded image on a recording sheet,

wherein said latent image is developed by said one or more sets of first and second developing rollers disposed along the moving direction of said image carrier and rotatable in the

10/025,550
H07-138280M/STS

mutually opposite directions using said two-component magnetic developing agent consisting mainly of toners and magnetic carriers, and said toners are supplied to said latent image on said image carrier by said one or more sets of first and second developing rollers,

wherein the moving direction of said first developing roller is opposite to the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S1 = Vm1 / Vp$) between the peripheral speed ($Vm1$) of said first developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 0.8 - 2.0,

wherein the moving direction of said second developing roller is the same as the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S2 = Vm2 / Vp$) between the peripheral speed ($Vm2$) of said second developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 1.05 - 2.0, and

wherein the shape coefficients SF1, SF2 of said toners of said two-component magnetic developing agent consisting mainly of toners and magnetic carriers are defined according to following expressions (1) and (2),

$$SF1 = (\text{maximum length of diameter})^2 / (\text{area of toner particle}) \times \pi / 4 \times 100 \text{ --- (1)}$$

$$SF2 = (\text{peripheral length of projected image})^2 / (\text{area of toner particle}) \times 100 / 4 \pi \text{ --- (2),}$$

said shape coefficients SF1, SF2 respectively satisfying the following conditions:

$$120 \leq SF1 \leq 170$$

$$110 \leq SF2 \leq 130.$$

3. (Previously presented) The image forming method of claim 1, wherein the peripheral speed ratio S1 is in a range from 0.9 to 1.9.

4. (Previously presented) The image forming method of claim 1, wherein the peripheral speed ratio S2 is in a range from 1.1 to 1.9.

5-6. (Canceled)

10/025,550
H07-138280M/STS

7. (Previously presented) The image forming method of claim 2, wherein the peripheral speed ratio S1 is in a range from 0.9 to 1.9.

8. (Previously presented) The image forming method of claim 2, wherein the peripheral speed ratio S2 is in a range from 1.1 to 1.9.

9-26. (Canceled)

27. (Currently amended) The image forming method of claim 3 ~~[[1]]~~, wherein said shape coefficients SF1, SF2 respectively satisfy the following conditions:

$$130 \leq SF1 \leq 160$$

$$115 \leq SF2 \leq 130.$$

28-33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Currently amended) An image forming method comprising:

in a center feed developing system comprising first and second developing rollers and a developing agent distributing member formed between said first and second developing rollers, and using a two-component developing agent consisting mainly of ~~said~~ toners and magnetic carriers:

controlling a stress applied to said developing agent between said first and second developing rollers and said a developing agent distributing member, by selecting a shape coefficient SF2 of toner particles in said toners to be within a predetermined range to restrict an occurrence of photographic fog;

10/025,550
H07-138280M/STS

delivering said developing agent consisting mainly of toners and magnetic carriers to said first developing roller, said toners having a shape coefficient SF1 in a range from 120 to 170 and a shape coefficient SF2 in a range from 110 to 130;

delivering said developing agent including said toners having said shape coefficients SF1, SF2 from said first developing roller to a photosensitive body;

restricting a delivery of said developing agent including said toners having said shape coefficients SF1, SF2 from said first developing roller to said photosensitive body by using said developing agent distributing member;

scraping said developing agent including said toners having said shape coefficients SF1, SF2 from said first developing roller using a scraper; ~~said scraper~~

delivering said toners supplied from a toner feed roller and said scraped developing agent onto two screw-shaped stirring members disposed in a lower portion of said developing system to a stirring member;

delivering said developing agent including said toners having said shape coefficients SF1, SF2 from said stirring members ~~member~~ to said second developing roller;

delivering said developing agent including said toners having said shape coefficients SF1, SF2 from said second developing roller to said photosensitive body;

restricting a delivery of said developing agent including said toners having said shape coefficients SF1, SF2 from said second developing roller to said photosensitive body, by using said developing agent distributing member;

adjusting a supply of said developing agent including said toners having said shape coefficients SF1, SF2 delivered to said photosensitive body by adjusting a bias power source for said first and second developing rollers;

delivering a surplus of said developing agent including said toners having said shape coefficients SF1, SF2 which has been restricted by said developing agent distributing member to said stirring members ~~member~~ using a guide plate which is adjacent to said developing agent distributing member;

forming a toner image on said photosensitive body, said toner image comprising

10/025,550
H07-138280M/STS

said toners having said shape coefficients SF1, SF2 delivered from said first and second developing rollers;

transferring said toner image comprising said toners having said shape coefficients SF1, SF2 from said photosensitive body to a recording sheet;

fixing said toner image comprising said toners having said shape coefficients SF1, SF2 onto said recording sheet by using heat and pressure; and

removing said toners having said shape coefficients SF1, SF2 which remain on said photosensitive body by using a fur cleaning brush which is in contact with said photosensitive body,

wherein said first and second developing rollers are rotatable in mutually opposite directions,

wherein the moving direction of said first developing roller is opposite to the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S1 = Vm1 / Vp$) between the peripheral speed ($Vm1$) of said first developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 0.8 - 2.0, and

wherein the moving direction of said second developing roller is the same as the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S2 = Vm2 / Vp$) between the peripheral speed ($Vm2$) of said second developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 1.05 - 2.0.

37. (Currently amended) The image forming method of claim 36, further comprising:
controlling an effectiveness of said fur brush ~~a cleaner~~ in said center feed developing system in cleaning said toners from said photosensitive body by selecting said shape coefficient SF1 of said toners to be within said a predetermined range from 120 to 170 and said shape coefficient SF2 to be within said range from 110 to 130.

38. (Currently amended) An image forming method comprising:
in a center feed developing system comprising first and second developing rollers and

10/025,550
H07-138280M/STS

a developing agent distributing member formed between said first and second developing rollers, and using a two-component developing agent consisting mainly of ~~said~~ toners and magnetic carriers:

controlling a stress applied to said developing agent between said first and second developing rollers and said a developing agent distributing member, by selecting a shape coefficient SF2 of toner particles in said toners to be within a predetermined range to restrict an occurrence of photographic fog;

developing an electrostatic latent image formed on an image carrier into a toner image using said toners;

transferring said toner image onto a recording medium ~~which comprises a continuous sheet~~; and

fixing said toner image transferred onto said recording medium to thereby form a recorded image on a recording sheet;

wherein said latent image is developed by said first and second developing rollers disposed along the moving direction of said image carrier and rotatable in the mutually opposite directions using said two-component ~~magnetic~~ developing agent consisting mainly of toners and magnetic carriers, and said toners are supplied to said latent image on said image carrier by said first and second developing rollers,

wherein the moving direction of said first developing roller is opposite to the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S1 = Vm1 / Vp$) between the peripheral speed ($Vm1$) of said first developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 0.8 - 2.0,

wherein the moving direction of said second developing roller is the same as the moving direction of said image carrier in a developing area, and a peripheral speed ratio ($S2 = Vm2 / Vp$) between the peripheral speed ($Vm2$) of said second developing roller and the peripheral speed (Vp) of said image carrier is set in the range of 1.05 - 2.0, and

wherein a plurality of shape coefficients SF1, SF2 of said toners of said two-component ~~magnetic~~ developing agent consisting mainly of toners and magnetic carriers are respectively

10/025,550
H07-138280M/STS

defined according to the following expressions (1) and (2),

$$SF1 = (\text{maximum length of diameter})^2 / (\text{area of toner particle}) \times \pi / 4 \times 100 \quad \text{--- (1)}$$

$$SF2 = (\text{peripheral length of projected image})^2 / (\text{area of toner particle}) \times 100 / 4 \pi \quad \text{--- (2),}$$

said shape coefficients SF1, SF2 respectively satisfying the following conditions:

$$130 \leq SF1 \leq 160$$

$$115 \leq SF2 \leq 130.$$

39. (Canceled)